



NASA SBIR 2004 Phase I Solicitation

B4.02 Market Driven Space Exploration Payloads

Lead Center: MSFC

NASA has an interest in the development of science and experiments that support strategic aspects of exploration, as well as the development of technologies to extend humanity's reach to the Moon, Mars, and beyond. This includes designing exploration microgravity payloads. For example, life support technologies that enable health monitoring, provide functional foods and nutraceuticals, and environmentally clean habitats with dual applications on Earth such as high-resolution wireless ultrasound for patient monitoring, improved crop productions, and new forms of drug delivery. Preparing for exploration and research will accelerate the development of technologies that are important to the economy and national security as well as accelerate critical technologies.

Microgravity Payloads

- Design and develop microgravity payloads for space station applications that lead to commercial products or services.
- Enabling commercial technologies that promote the human exploration and development of space.
- Enabling commercial technologies through the use of ISS as a commercial test bed for hardware, products, or processes.
- Enabling technology designed to reduce crew work loads and/or facilitate commercial investigations or processing through automation, robotics, or nanotechnology.

Combustion Science

Innovative applications in combustion research that will lead to developing commercial products or improved processes through the unique properties of space or through enhanced or innovative techniques on the ground.

Food Technology

Innovative applications of space research in food technology that will lead to developing commercial food products or improved food processes through the unique properties of space or through enhanced or innovative techniques on the ground.

Biomedical Materials

Innovative materials where microgravity promotes structures such as biodegradable polymers for use in wound healing and orthopedic applications.

Entertainment Value Missions

Innovative approaches for commercial economic benefit from space research involving broadcasting, e-business,

or other activities that have entertainment value.